

[CALDWELL Velociradar User Manual](#)

[Manualsum](#), simplified manuals

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CALDWELL Velociradar User Manual

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(2AF3W-1134904)



CONTENTS





Ball Head
Tripod



Recoil Trigger



USB-C Charging Cable

SAFETY AND WARNINGS

Read thoroughly all directions and safety instructions included in the package. Failure to comply may result in an unsafe firearm condition that may cause property damage, personal injury or death.

WARNING: Target must have a safe backstop. Always follow all applicable safety rules while using the chronograph, including but not limited to:

1. Firearm and shooting safety rules
2. Airgun and paintball gun safety rules
3. Ammunition reloading safety rules
4. Archery safety rules

If you are not familiar with applicable rules for your application consult the manufacturer(s) of the firearm, airgun, paintball gun, bow or reloading equipment/component...

WARNING: Velocity measurements should not be used to calculate combustion pressures in your cartridge or chamber. Again, do not exceed published maximum powder levels in your ammunition.

WARNING: Do not try to protect your chronograph with armor plating. Bullet ricochet from hitting this plating could cause property damage, personal injury or death. Intentional or unintentional shooting of the chronograph will void factory warranty.

As with any electronic device, water can damage certain components. To prevent damage, do not use chronograph outside when it is raining without being protected.

SPECIFICATIONS

Velocity Range	250-4500 FPS
Battery	Rechargeable Lithium-Ion, 7.4V, 2500mAh, 18.5Wh
Charging Input	USB-C 5V, 700mA
Operating Temperature	0-130 degrees F
Smart Phone Interface	Bluetooth Low Energy (BLE)
Radar Transmission Frequency	24075MHz to 24175MHz
Model	#1134904

OVERVIEW



1. Directional Buttons — Press to navigate menus.
2. Power Button — Press to turn on and off Velociradar.
3. Select Button — Press to select options and enter menus.
4. Back Button — Press to undo and exit menus.
5. Arm Button — Press to disable/enable radar during a string.
6. USB-C Charging Port — For charging the internal lithium-ion battery.
7. Recoil Trigger Port — For connecting the included external recoil trigger.
8. Peep Sight — For aligning the radar to the target.
9. 1/4 -20 Mount — For included ball head tripod or other mounting attachment.

CHARGING

Connect the included USB-C charging cable to the USB-C charging port of the Velociradar. Connect the other end of the charging cable to a 500mA or greater USB charging adapter or power bank. You will not be able to use the Velociradar while it is charging.

WARNING: The Velociradar contains a lithium-ion battery. To prevent the possibility of personal injury, product damage, or other property damage caused by battery exposure to extreme heat, store the device out of direct sun- light. To avoid over-heating, do NOT charge this device in high temperatures or humidity.

POWERING ON/OFF

- **Power On:** (When Velociradar is off) Hold the Power Button for 1 second until the screen turns on.
- **Power Off:** (When Velociradar is on) Press and release the Power Button.

OPERATION

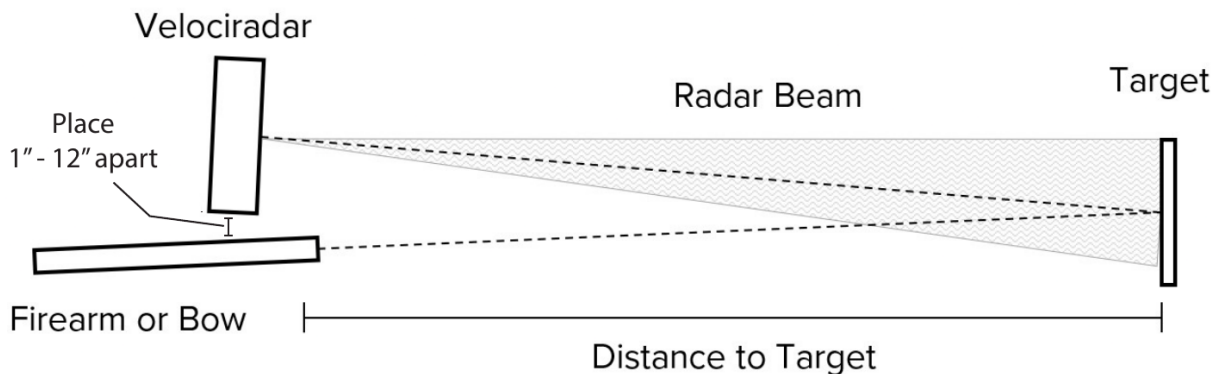
The Velociradar Chronograph captures advanced ballistic data safely from behind the firing line. It can be set up near the firearm using the included ball head tripod and aimed using the integral peep sight. The radar is activated using the internal acoustic trigger (using muzzle blast) or by using the external recoil trigger (included), securely attached to the firearm or bow.

To use the Velociradar, follow these steps:

1. Set up a shooting target 100 yards away. The target may be set up closer if necessary, but the Velociradar cannot track the bullet once it is past the target.
2. Set up your shooting position in a safe and comfortable location. Ensure that you have enough space to place the Velociradar on a tripod next to your firearm or bow.
3. Attach the Velociradar securely to the included ball head tripod. Turn on the Velociradar by pressing and holding the Power Button until the display turns on.
4. Choose the Acoustic Trigger or the Recoil Trigger to activate the radar. Select the trigger mode in the setting menu on the Velociradar or in the app.
5. If you are using the Recoil Trigger, attach it to your firearm or bow using the provided cable and strap. Follow the instructions in the Recoil Trigger section for more details.
6. Start a new string on the Velociradar by selecting New String from the main menu. You can also choose to continue an existing string if you want to add more shots to it.
7. Press any button to pause the radar. The display will show that the string is paused. To resume, press the Arm Button again.
8. Aim the Velociradar by centering the target inside the peep sight. Make sure the Velociradar is level and stable on the tripod.
9. Aim your firearm or bow at the same target as the Velociradar. Make sure the muzzle is even with or slightly in front of the Velociradar. Never shoot from behind the Velociradar to avoid accidental impact and damage.
10. Take the first shot. The Velociradar will detect the shot using the selected trigger and measure the velocity and other ballistic data of the projectile. The data will be displayed on the screen after a few seconds.
11. Repeat the steps above for each shot you want to record. The Velociradar will store up to 100 shots per string.

12. String data is saved after every shot. When you are finished with the string, press the back button to return to the main menu.

SETUP TIPS



The Velociradar measures the speed and distance of the projectile while it is in the radar beam.

For reliable measurement:

The Velociradar should be as close to the muzzle or release point without being in danger of impact or excessive muzzle blast.

Set up the target at a distance that is appropriate for the method of shooting and ensure that the projectile impacts the target reliably. Shots off target may not be reliably detected.

Make sure the range between the Velociradar and Target is clear of any obstructions such as other targets, brush, trees, etc. This can cause the radar to be blocked and prevent an accurate reading.

Ensure that both the Velociradar and firearm or bow are aimed precisely at the same target.

The Velociradar should be even with or slightly behind the muzzle for accurate distance measurement.

Use the appropriate trigger method for your environment.

The Velociradar should be set on a stable bench or tripod. Recoil or an unstable bench can cause the radar to become misaligned and miss the shot.

If a stable bench is not available, we recommend mounting the Velociradar to a freestanding tripod near the bench.

Examples:



VELOCIRADAR CLOSE TO
THE BARREL.



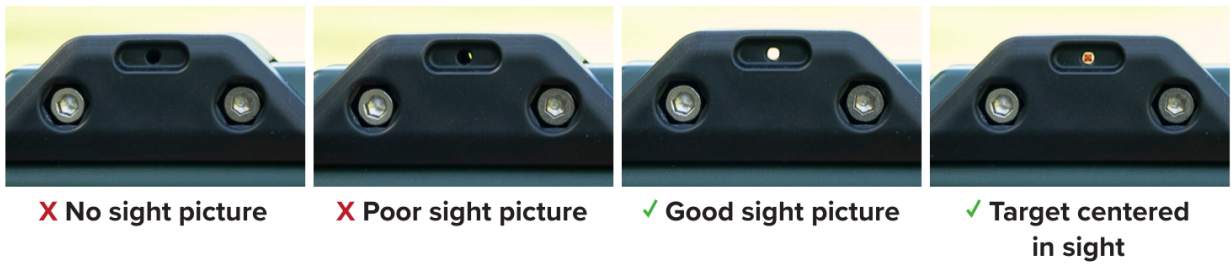
VELOCIRADAR SLIGHTLY BEHIND MUZZLE.

USING THE PEEP SIGHT

The integrated Peep Sight allows for easy aiming of the Velociradar.

To use the Peep Sight:

1. Start with the Velociradar mounted to a tripod and in the position it will be used from.
2. First, find the sight picture by holding your eye a few inches away from the Peep Sight. Move your head around until you can see through the Peep Sight.
3. Now, holding the Velociradar, maintain the sight picture and adjust the Velociradar until the target can be seen in the center of the Peep Sight.



Note: The Peep Sight is calibrated to the exact angle of the radar beam for maximum signal strength and detection distance and may be slightly offset from the perpendicular to the main body housing. Always aim using the Peep Sight and not chronograph main body.

RECOIL OR ACOUSTIC ACTIVATION

The radar ballistic measurement is triggered by either the internal Acoustic Trigger or the external Recoil Trigger.

The Acoustic Trigger is activated by the sound of the muzzle blast. It is NOT recommended for suppressed firearms, air rifles, archery or at busy ranges with a lot of other shooters' muzzle blasts.

The Recoil Trigger is activated by the recoil of the firearm or bow when shooting and is not affected by the sound of near-by shooters. The Recoil Trigger can be strapped to the firearm or bow. It is recommended for suppressed, air rifles, and archery.

The Trigger mode can be changed in the Settings menu, accessed through the Main Menu.

RECOIL TRIGGER ATTACHMENT

The Recoil Trigger can be used with rifles, shotguns, handguns, bows, and crossbows. In most applications it is best to securely strap the trigger to a non-moving part of the firearm or bow such as the stock, scope, grip, or riser. In the case of smaller handguns, it may be best to hold the trigger between your palm and the grip.



RIFLE or SHOTGUN

Strap trigger securely to the stock, barrel, or scope as shown.

NOTE: Make sure the cable won't interfere or catch with the action or the firearm.



HANDGUN

Strap the trigger assembly to the grip, or hold the trigger firmly between the grip and your palm.

NOTE: Make sure the cable won't interfere with the slide, or be exposed to blast from a revolver cylinder.



ARCHERY

Strap the trigger to the bow bow riser, stabilizer, or crossbow stock.

NOTE: Make sure the trigger and cable are completely clear of the bowstring.

SMART PHONE CONNECTION

Download and install the Caldwell App for Android or iOS from the Apple App Store or Google Play Store. Follow the instructions within the app to connect to and interface with your Velociradar.

**SCAN HERE
FOR APP
DOWNLOAD**



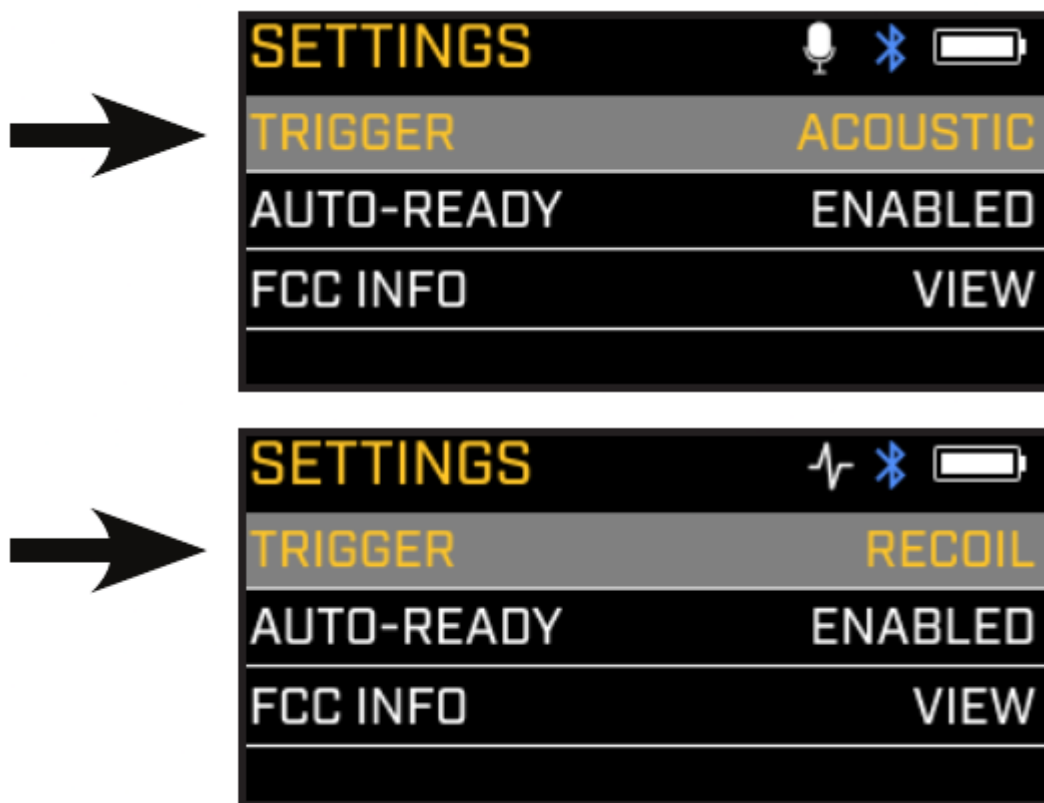
TROUBLESHOOTING

ISSUES: CAN'T CONNECT TO THE APP

Bluetooth and Location Access:

- Check that Bluetooth is enabled on your smartphone.
- Verify that Location Access is enabled on your smartphone.
- To confirm permissions, navigate to “Settings” in the Caldwell app and then go to the “Permissions” tab.

For additional troubleshooting information, please call Customer Service or visit caldwellshootina.com.



ISSUE: THE RADAR DIDN'T TRIGGER

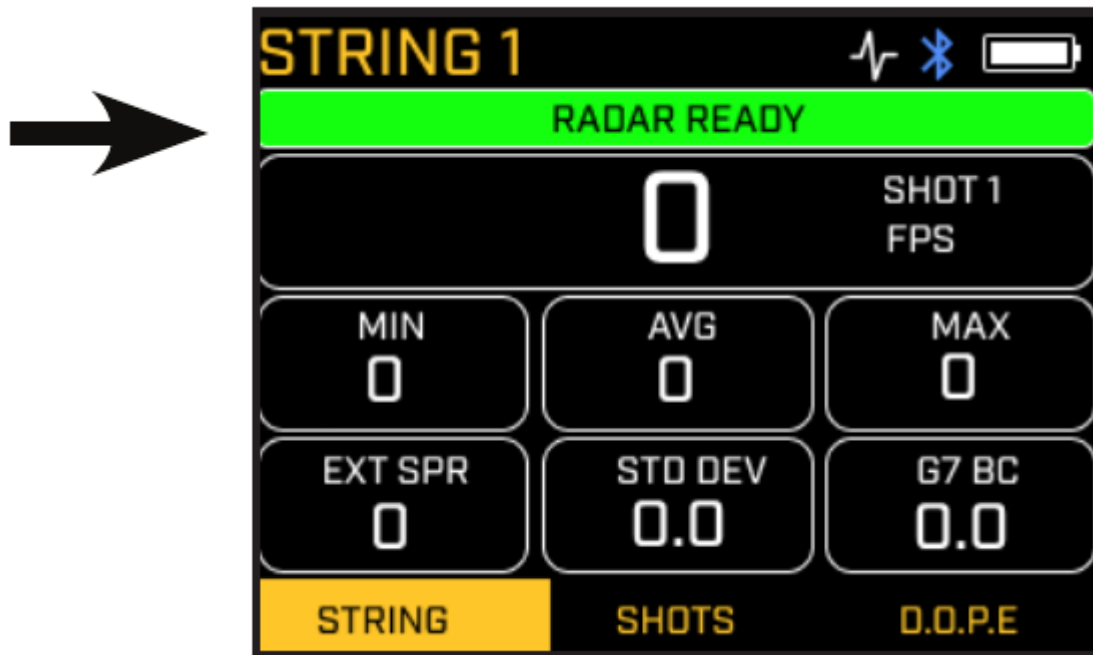
Trigger Method Selection:

- Check that the correct trigger method (recoil or acoustic) is selected in the settings menu of the Velociradar.
- If using the recoil trigger, ensure it is securely attached to the firearm or bow and that there is sufficient recoil to activate the trigger. For low-recoil applications, consider using the acoustic trigger. See previous page for proper placement examples.
- If using the acoustic trigger, ensure the firearm is as close to the Velociradar as possible, and the report is loud enough to activate the [Manualsum](#)

trigger. For suppressed firearms and archery, consider using the recoil trigger.

Radar Readiness:

«Verify that the radar is armed, and the “Radar Ready” prompt is displayed. This should happen automatically if the Auto-Ready setting is enabled. If not, press the ARM button to arm the radar.



ISSUE: THE RADAR TRIGGERED, BUT NO READING



Alignment Check:

Ensure the Velociradar is aligned correctly with the target. The target you are shooting should be centered within the peep sight of the Velociradar.



Positioning:

Confirm that the firearm or bow is positioned as close to the left or right of the Velociradar as possible.



Adjust Aim:

If both alignment and positioning are correct, adjust the aim of the Velociradar ***slightly*** toward the muzzle of the firearm.

FIRMWARE UPDATES

Firmware updates can be found in the Caldwell App and applied to your connected Velociradar. Follow the instructions in the app.

In order to perform a firmware update on the device or check for a firmware update you must navigate to the Devices tab > select your device > settings icon in the top right hand corner > click on "Check for update."